

Attorney Docket No. 06618-408002
Serial No.: 09/912,804
Amendment dated January 7, 2004
Reply to Office Action dated August 26, 2003

Amendment to the Claims:

This listing of claims replaces all prior versions, and listings, of claims in the application:

1. (Currently amended) A catalyst ink for a fuel cell comprising a solution of catalytic material and poly(vinylidene fluoride) that are substantially homogenously mixed throughout the solution.

2. (Original) The catalyst ink of claim 1, wherein the catalytic material comprises Pt.

3. (Original) The catalyst ink of claim 1, wherein the catalytic material comprises Pt and Ru.

4. (Currently amended) The catalyst ink of claim 1, further comprising a ~~second~~ an ionomer.

5. (Currently amended) The catalyst ink of claim 1, wherein the ~~ionomer~~ catalyst ink comprises a liquid copolymer of tetrafluoroethylene and perfluorovinylethersulfonic acid.

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Kindly and the following new claims.

6. (New) A method of forming an electrochemical membrane, comprising:
- obtaining a membrane material;
 - roughening a surface of the membrane material;
 - applying a catalyst ink to the roughened surface, which catalyst ink includes a solution of catalytic material and poly(vinylidene fluoride); and
 - using said membrane material with said catalyst ink thereon in an electrochemical fuel cell.
7. (New) A method as in claim 6, wherein said roughening comprises contacting the membrane surface with a grid size between 200 and 400.
8. (New) A method as in claim 6, wherein said roughening comprises selecting abrasive particles that will not contaminate the membrane.

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9. (New) A method as in claim 6, further comprising mixing the catalytic material and poly(vinylidene fluoride) substantially homogeneously throughout the solution prior to said applying.

10. (New) A method as in claim 9, wherein said mixing comprising sonicating the solution.